

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method of measuring performance of streaming media over a network, the method comprising:

- connecting a data acquisition agent to the network;
- ~~generating a list of measurement targets, associated configuration parameters, and schedule based on data received for each of the measurement targets;~~
- receiving ~~the~~ a list of measurement targets, associated configuration parameters, and schedule at the data acquisition agent;
- sending a request for streaming media, based on the received list of measurement targets and schedule, from the data acquisition agent to a media source identified as one of the measurement targets connected to the network;
- receiving streaming media from the measurement target in response to the request for media at the data acquisition agent;
- monitoring the received streaming media;
- collecting performance measurements based on ~~for~~ the received streaming media; and
- sending the collected performance measurements to a data collection server configured for collecting and storing data received from a plurality of data acquisition agents.

Claim 2 (original): The method of claim 1 wherein receiving streaming media comprises receiving streaming audio.

Claim 3 (original): The method of claim 1 wherein receiving streaming media comprises receiving streaming video.

Claim 4 (original): The method of claim 1 wherein receiving streaming media comprises receiving streaming audio and video.

Claim 5 (canceled).

Claim 6 (canceled).

Claim 7 (original): The method of claim 1 wherein collecting performance measurements comprises collecting initial connection and redirection times.

Claim 8 (original): The method of claim 1 wherein collecting performance measurements comprises collecting number of redirects.

Claim 9 (original): The method of claim 1 wherein collecting performance measurements comprises collecting packet information.

Claim 10 (original): The method of claim 1 wherein collecting performance measurements comprises collecting rebuffer information.

Claim 11 (original): The method of claim 1 wherein collecting performance measurements comprises collecting frame information.

Claim 12 (original): The method of claim 1 wherein collecting performance measurements comprises collecting bandwidth information.

Claim 13 (original): The method of claim 1 wherein collecting performance measurements comprises identifying the codec used to encode a clip.

Claim 14 (original): The method of claim 1 wherein collecting performance measurements comprises identifying errors

Claim 15 (original): The method of claim 1 wherein the network is the Internet.

Claim 16 (original): The method of claim 15 wherein the media source is a Web server.

Claim 17 (original): The method of claim 1 wherein connecting a data acquisition agent to the network comprises connecting a plurality of data acquisition agents to the network at a plurality of locations.

Claim 18 (original): The method of claim 17 wherein each of the data acquisition agents include an internal clock coordinated with the other data acquisition agent clocks.

Claim 19 (original): The method of claim 1 further comprising displaying the performance measurements on a Web site.

Claim 20 (original): The method of claim 1 further comprising determining a stream quality rating based on the collected performance measurements.

Claim 21 (currently amended): ~~The method of claim 20~~ A method of measuring performance of streaming media over a network, the method comprising:

connecting a data acquisition agent to the network;
receiving a list of measurement targets, associated configuration parameters,
and schedule at the data acquisition agent;
sending a request for streaming media, based on the received list of
measurement targets and schedule, from the data acquisition agent to a media source
identified as one of the measurement targets connected to the network;
receiving streaming media from the measurement target in response to the
request for media at the data acquisition agent;
monitoring the streaming media;
collecting performance measurements for the streaming media;
sending the performance measurements to a data collection server configured
for collecting and storing data received from a plurality of data acquisition agents;
and
determining a stream quality rating based on the collected performance
measurements,
wherein the stream quality rating is calculated based on a percentage of a
startup score, audio score, and video score, ~~wherein the stream quality rating is a~~
~~value calculated based on a percentage of the startup score, audio score and video~~
score.

Claim 22 (original): The method of claim 21 wherein the video and audio scores are based on rendering and encoding scores.

Claim 23 (original): The method of claim 22 wherein the rendering scores are based on relative packets and bandwidth.

Claim 24 (original): The method of claim 22 wherein the encoding scores are based on bandwidth data.

Claim 25 (original): The method of claim 1 wherein collecting performance measurements comprises collecting measurements for a predetermined period of time.

Claim 26 (original): The method of claim 1 wherein collecting performance measurements comprises collecting measurements at predetermined intervals.

Claim 27 (original): The method of claim 1 wherein collecting performance measurements comprises collecting measurements at specified times.

Claim 28 (currently amended): A computer program product for measuring streaming media over a network, the product comprising:

computer code that connects a data acquisition agent to the network;

~~computer code that generates a list of measurement targets, associated configuration parameters, and a schedule based on data for each of the measurement targets;~~

computer code that is configured for reading a received list of measurement targets at the data acquisition agent, associated configuration parameters, and schedule;

computer code that sends a request for streaming media, based on the received list of measurement targets and schedule, from the data acquisition agent to a media source connected to the network;

computer code that receives streaming media in response to the request for media at the data acquisition agent;

computer code that monitors the received streaming media;

computer code that collects performance measurements based on ~~for~~ the received streaming media

computer code that sends the collected performance measurements to a data collection server configured for collecting and storing data received from a plurality of data acquisition agents; and

a computer readable medium that stores said computer codes.

Claim 29 (original): The computer product of claim 28 wherein the computer readable medium is selected from the group consisting of CD-ROM, floppy disk, tape, flash memory, system memory, hard drive, and a data signal embodied in a carrier wave.

Claim 30 (currently amended): A system for measuring performance of streaming media sent from a server over a network, the system comprising:

a preference delivery device operable to generate a list of measurement targets and associated configuration parameters;

a scheduler operable to generate a schedule based on data received for each of the measurement targets; and

a data acquisition agent connected to the network and operable to receive the list of measurement targets, the configuration parameters associated with each of said measurement targets, and the schedule for requesting streaming media from each of said measurement targets; send a request for streaming media to the server, the agent ~~being~~ configured to receive the streaming media, collect performance measurements based on the received streaming media, and send the collected performance measurements to a storage device.

Claim 31 (original): The system of claim 30 wherein the data acquisition agent includes a media player.

Claim 32 (canceled).

Claim 33 (canceled).

Claim 34 (original): The system of claim 30 further comprising a data delivery system operable to receive data collected by the agent and store said data in a database.

Claim 35 (original): The system of claim 30 wherein the performance measurements include a list of errors

Claim 36 (currently amended): ~~The system of claim 30~~ A system for measuring performance of streaming media sent from a server over a network, the system comprising:
a preference delivery device operable to generate a list of measurement targets and associated configuration parameters;
a scheduler operable to generate a schedule based on data received for each of the measurement targets; and
a data acquisition agent connected to the network and operable to receive the list of measurement targets, the configuration parameters associated with each of said measurement targets, and the schedule for requesting streaming media from each of said measurement targets; send a request for streaming media to the server, the agent being configured to receive the streaming media, collect performance measurements, and send the performance measurements to a storage device;
wherein the performance measurements comprise initial connection and redirection times.

Claim 37 (currently amended): ~~The system of claim 30~~ A system for measuring performance of streaming media sent from a server over a network, the system comprising:

a preference delivery device operable to generate a list of measurement targets and associated configuration parameters;

a scheduler operable to generate a schedule based on data received for each of the measurement targets; and

a data acquisition agent connected to the network and operable to receive the list of measurement targets, the configuration parameters associated with each of said measurement targets, and the schedule for requesting streaming media from each of said measurement targets; send a request for streaming media to the server, the agent being configured to receive the streaming media, collect performance measurements, and send the performance measurements to a storage device;

wherein the performance measurements comprise number of redirects.

Claim 38 (original): The system of claim 30 wherein the performance measurements comprise packet information.

Claim 39 (currently amended): ~~The system of claim 30~~ A system for measuring performance of streaming media sent from a server over a network, the system comprising:

a preference delivery device operable to generate a list of measurement targets and associated configuration parameters;

a scheduler operable to generate a schedule based on data received for each of the measurement targets; and

a data acquisition agent connected to the network and operable to receive the list of measurement targets, the configuration parameters associated with each of said measurement targets, and the schedule for requesting streaming media from each of said measurement targets; send a request for streaming media to the server, the agent being configured to receive the streaming media, collect performance measurements, and send the performance measurements to a storage device;

wherein the performance measurements comprise rebuffer information.

Claim 40 (original): The system of claim 30 wherein the performance measurements comprise frame information.

Claim 41 (original): The system of claim 30 wherein the performance measurements comprise bandwidth information.

Claim 42 (original): The system of claim 30 wherein the performance measurements comprise the codec used to encode a clip.

Claim 43 (original): The system of claim 30 wherein the network is the Internet.

Claim 44 (original): The system of claim 43 wherein the server is a Web server.

Claim 45 (original): The system of claim 30 further comprising a plurality of data acquisition agents located in different geographic locations.

Claim 46 (original): The system of claim 30 further comprising a processor configured to determine a stream quality rating based on the collected performance measurements.

Claim 47 (original): The system of claim 46 wherein the stream quality rating is based on a startup score, audio score, and video score.

Claim 48 (original): The system of claim 47 wherein the video and audio scores are based on rendering and encoding scores.

Claim 49 (original): The system of claim 48 wherein the rendering scores are based on relative packets and bandwidth.

Claim 50 (original): The system of claim 48 wherein the encoding scores are based on bandwidth data.

Claim 51 (original): The system of claim 30 wherein the agent is configured to at least temporarily store the collected performance measurements.

Claim 52 (previously presented): The system of claim 30 wherein the scheduler is in communication with the data acquisition agent and is configured to compute a schedule based on measurement interval, start time, and end time for each of the measurement targets.

Claim 53 (currently amended): ~~The system of claim 52~~ A system for measuring performance of streaming media sent from a server over a network, the system comprising:

a preference delivery device operable to generate a list of measurement targets and associated configuration parameters;

a scheduler operable to generate a schedule based on data received for each of the measurement targets; and

a data acquisition agent connected to the network and operable to receive the list of measurement targets, the configuration parameters associated with each of said measurement targets, and the schedule for requesting streaming media from each of said measurement targets; send a request for streaming media to the server, the agent

being configured to receive the streaming media, collect performance measurements, and send the performance measurements to a storage device;

wherein the scheduler is operable to receive information from the data acquisition agent to determine if the agent is overbooked.

Claim 54 (previously presented): The method of claim 1 wherein the configuration parameters comprise a URL containing media to be played and performance measurements to be collected.

Claim 55 (previously presented): The method of claim 1 further comprising sending schedule information to a schedule generator and receiving the schedule.

Claim 56 (previously presented): The method of claim 55 wherein the schedule information includes playback time.

Claim 57 (previously presented): The method of claim 1 wherein connecting a data acquisition agent to the network comprises utilizing a connection other than a dial-up connection.

Claim 58 (previously presented): A method of measuring performance of streaming media over a network, the method comprising:

receiving at a data acquisition agent, a list of measurement targets, associated configuration parameters, and a schedule file;

sending a request for streaming media from the data acquisition agent to one of the measurement targets at a time specified in the schedule file;

receiving streaming media in response to the request for media at the data acquisition agent;

collecting performance measurements for the streaming media; and

sending performance measurements to a storage device.

Claim 59 (previously presented): The method of claim 58 wherein receiving a schedule file comprises:

generating a measurement schedule at the data acquisition agent based on the list of measurement targets and associated configuration parameters;
sending the measurement schedule to a schedule generator; and
receiving a schedule file from the schedule generator.

Claim 60 (currently amended): ~~The method of claim 59~~ A method of measuring performance of streaming media over a network, the method comprising:
receiving at a data acquisition agent, a list of measurement targets, associated configuration parameters, and a schedule file;
sending a request for streaming media from the data acquisition agent to one of the measurement targets at a time specified in the schedule file;
receiving streaming media in response to the request for media at the data acquisition agent;
collecting performance measurements for the streaming media; and
sending performance measurements to a storage device;
wherein the performance measurements comprise initial connection time, redirection time, and buffering time.

Claim 61 (currently amended): ~~The method of claim 59~~ A method of measuring performance of streaming media over a network, the method comprising:
receiving at a data acquisition agent, a list of measurement targets, associated configuration parameters, and a schedule file;
sending a request for streaming media from the data acquisition agent to one of the measurement targets at a time specified in the schedule file;

receiving streaming media in response to the request for media at the data acquisition agent;

collecting performance measurements for the streaming media; and
sending performance measurements to a storage device.

wherein the performance measurements comprise: average frames per second, average video and audio bandwidth, and encoding rate.

Claim 62 (currently amended): The ~~method of claim 59 further comprising~~ A method of measuring performance of streaming media over a network, the method comprising:

receiving at a data acquisition agent, a list of measurement targets, associated configuration parameters, and a schedule file;

sending a request for streaming media from the data acquisition agent to one of the measurement targets at a time specified in the schedule file;

receiving streaming media in response to the request for media at the data acquisition agent;

collecting performance measurements for the streaming media;

sending performance measurements to a storage device; and

calculating a stream quality rating based on a percentage of a startup score, audio score, and video score.

Claim 63 (currently amended): The method of claim ~~63~~ 62 wherein the audio and video score account for encoding, delivery, and rendering factors.